

***FlexAir™
Powered Air
Purifying Respirator***



IMMEDIATE
RESPONSE
TECHNOLOGIES
Manufacturer of TVI & SafetyTech Products

www.imresponse.com

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Immediate Response Technologies, Inc.
7100 Holladay-Tyler Road
Glenn Dale, MD 20769
800-598-9711

P/N C-85090-001, Rev. 9

This manual could contain technical inaccuracies or typographical errors. Updates are made periodically to the information herein. If you have comments please forward them to Immediate Response Technologies . Thank you.

⚠ WARNING

This product shall not be used until the **end user reads and understands** the user instruction or instruction manual which is supplied with, and is a critical component of, each Immediate Response Technologies system. If the end user has questions concerning the safe operation of this product, please consult the local supervisor or safety program administrator. If the user instruction or instruction manual is not supplied to the end user, a copy can be obtained by calling Immediate Response Technologies: 301-352-8800 (in Maryland) or 800-598-9711 (toll-free in the continental U.S.A.)

Use of Immediate Response Technologies equipment, other than in compliance with the supplied user instructions, or instruction manual, or use by personnel who are unqualified, or untrained, is dangerous, and the user may be exposed to serious bodily injury or death.

This respirator cannot be used in oxygen-deficient (less than 19.5% oxygen) atmospheres. This respirator cannot be used in atmospheres that are Immediately Dangerous to Life or Health (IDLH). If the end user has questions concerning the safe operation of this product, please consult the local supervisor or safety program administrator.

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1.0 GENERAL

The Immediate Response Technologies FlexAir™ respirator is a blower-assisted air-purifying respirator referred to as a Powered Air-Purifying Respirator or a PAPR.

The filtering system consists of a waist-mounted battery-driven Blower Assembly that can be configured with three (3) gas/particulate removing cartridges or two (2) high efficiency (HE) particulate filters. The Blower Assembly contains an electric motor driving an air blower. The Blower Assembly includes an on-board rechargeable 7.4-volt (nominal) Lithium-ion Battery (7 to 8 hour run time) and integral charging connection. A single-speed “on-off” switch is located on the top front of the Blower Assembly, with integral Low-Flow and Low-Battery alarms. There are three (3) female threaded inlets on the Blower Assembly for the attachment of the filtration media (sold separately). A blanking plug is used to block one filter port when using the two HE Filters. The user of the respirator breathes ambient air after the air has passed through the filtration media. The Cartridges include a sorbent bed of impregnated activated carbon to trap and/or neutralize various gases/vapors, and a mechanical filter to trap airborne particles. The HE Filter comprises only a mechanical filter medium to protect against airborne particles.

The Blower Assembly assists breathing by drawing air through the filtration media and delivering the purified air through a hose assembly that is attached to the headcover. An Airflow Indicator, Immediate Response Technologies P/N S-30112-001, is used to check for minimum airflow and is provided with the FlexAir™ filtering system. To maintain respiratory protection,

- The user must be properly fitted to the respirator head cover before use.
- The Blower, with filtration media installed, must be tested with the Airflow Indicator, both prior to use, and at prescribed intervals during use to monitor battery life and Cartridge or Filter efficiency.

The Immediate Response Technologies FlexAir™ can only be used with Immediate Response Technologies head covers (see the NIOSH approval label for specific part numbers and limitations).

2.0 CONTENTS

The Immediate Response Technologies FlexAir™ filtering system can be shipped with the components listed below. Inspect the contents for shipping damage and ensure all components are present.

- Immediate Response Technologies FlexAir™ Blower Assembly w/On-board Battery
- Loose-fitting Head Cover
- Breathing Tube Assembly
- Waist Belt
- Li-ION Battery Charger
- Filtration media
- Blanking Plug
- Airflow Indicator
- Instruction Manuals (with NIOSH information)

3.0 LIMITATIONS OF USE

As specified on the appropriate NIOSH Approval Label supplied with the Blower Assembly system, Cartridges, Filters and in Appendix A of this manual.

⚠ WARNING

This powered air-purifying device is only for use in specific atmospheres and under certain conditions. Follow these instructions carefully. Failure to do so could result in injury or death.

- The end user must read and fully understand this instruction manual prior to use.
- The end user of the respirator must have received training in the use of the respirator including, but not limited to, pre-use check, donning, use, doffing (removal), and after-use care of the respirator.

⚠ WARNING

The failure to choose a respirator equipped with a cartridge and/or filter suitable for the contaminant(s) in the atmosphere or likely to be released in the atmosphere may result in the respirator providing little or no protection against the contaminated atmosphere, leading to serious bodily injury or death.

- During use of this respirator, the atmosphere must be monitored for the level of contamination and provide for the withdrawal of the using personnel in the event that the contamination level increases to immediately dangerous to life and health (IDLH) levels.
- This respirator must be properly inspected before use, properly decontaminated, if necessary, after use, properly cleaned and maintained after use, and properly stored between uses.

- The FlexAir™ respirator may not be taken into or used in atmospheres containing flammable or explosive gases, vapors, or dusts when the concentration of such contaminants is near or above the lower flammable limit (LFL).
- Do not use the FlexAir™ respirator for fire fighting, in oxygen-deficient atmospheres, or for protection against airborne contaminants which the selected cartridge does not protect against.

4.0. TECHNICAL INFORMATION

- Airflow: the FlexAir™ blower provides a constant filtered airflow at a minimum of 170 lpm to the applicable head cover when used with Immediate Response Technologies filtration media and a charged battery.
- The FlexAir™ blower may be configured with three (3) Gas/Particulate Cartridges or two (2) HE Filters and one (1) Blanking Plug. The Blanking Plug (available in black or gray) is used to manage air flow when the blower is used with the less restrictive HE Filters.
- The FlexAir™ blower has a “soft” start feature. When the switch is depressed to the “ON” position, it will take approximately 5 seconds for blower activation. During this period the alarm will “pulse” (i.e. beep) to confirm blower activation.
- Low-battery alarm: the FlexAir™ incorporates an audible “pulsing” alarm that activates when the system battery voltage is approaching a low level and the end user **MUST** leave the contaminated environment immediately and decontaminate if necessary. Charge the onboard battery before reusing the system.

- Low-airflow alarm: the FlexAir™ incorporates an audible “continuous” alarm that activates when the system air flow falls to a level where the end user **MUST** leave the contaminated environment immediately, and decontaminate if necessary. If continued system use and re-entry is required, the cause of the low flow alarm must be determined (for example, clogged filtration media, obstructed hose), corrected, and the system checked for proper operation.

NOTE: during initial system startup, the alarms will sound momentarily. If the alarms fail to cease sounding, do not use the FlexAir™ Blower until the fault is found and corrected. If the fault cannot be determined, remove the FlexAir™ blower from service and contact Immediate Response Technologies for repair.

- Battery: on-board rechargeable 7.4 volt (nominal) Lithium-ION (7 to 8-hour run time). NOTE: Run times will vary depending on combination of headpiece and filtration media used. Contamination levels and filter loading will also effect run time.
- Weight: Blower Assembly, with Belt Assembly, Battery and three Cartridges: approximately 4.3 lbs.

5.0 BEFORE USING THE FLEXAIR™

- See “Instructions for Use” of the respective Head Cover.
- Use only those NIOSH-approved Immediate Response Technologies Cartridges, Filters and Head Covers listed on the NIOSH approval labels (see Appendix A). Use three Cartridges or two HE Filters and a Blanking Plug.

- Perform all required pre-use inspections, checking the condition and intactness of all components.

- Installing the Waist Belts

- 1) Note the lacing path of the belt through the male buckle and remove the male buckle and keeper loop from the end of the belt.
- 2) Thread the belt through the slot on the blower side and out through the adjacent slot on the blower back plate; across the back of the blower; and then down through the slot on the back plate and out the side slot. Center the blower on the belt.
- 3) Replace the keeper loop and lace the male buckle back onto the belt.

- Charging the Battery

- The FlexAir™ Blower has an on-board battery that must be charged before initial use and after each use.
- Use only the approved Immediate Response Technologies Lithium-Ion charger to charge the FlexAir™ blower.

⚠ WARNING

Failure to use the approved charger and/or follow the proper charging procedure could damage equipment or lead to serious bodily injury.

- The battery should be charged in dust-free area at a temperature between 32°F and 104°F. Do not cover the charger during charging to prevent overheating of the charger.

- The charging jack is located on the bottom of the blower unit. Align the barrel of the charging plug with the charging jack and insert until the plug is fully engaged in the jack.
- Plug the charger AC power cord into a regulated outlet. Refer to the charger instructions for explanation of the charger indicator lights and for additional charging information.
- Ensure the blower is turned “OFF” during charging. If the blower switch is “ON” the blower will begin to operate after the charger is plugged into the AC outlet. This will not damage the blower. Charging time will be greatly increased if the blower is operating. Depress the switch to turn the blower “OFF” if it comes on during charging.
- When charging is complete, unplug the AC power cord from the regulated AC outlet and then remove the charger plug from the blower charging jack.

- Airflow Test

Test the operation of the Blower Assembly with the Airflow Indicator as follows:

- 1) Inspect the Airflow Indicator to verify that the O-ring is present and in good condition. The black float shall move freely within the column.
- 2) Remove the seal plugs from the outlet and Cartridge/Filter mounting ports of the Blower Assembly. **DO NOT DISCARD THE SEAL PLUGS.**
- 3) Insert the Airflow Indicator into the Blower Assembly air outlet. Push the Airflow Indicator into the air outlet until it contacts the shoulder.

- 4) Position the Blower Assembly in an upright position so the Airflow Indicator is vertical on top of the Blower Assembly.
- 5) Briefly turn on the Blower to verify operation. The alarm will “pulse” (i.e. beep) to confirm blower activation.

NOTE: during initial system startup, the alarms will sound momentarily. If the alarms fail to cease sounding, do not use the FlexAir™ Blower until the fault is found and corrected. If the fault cannot be determined, remove the FlexAir™ from service and contact Immediate Response Technologies for repair.

- 6) Supporting the Blower Assembly on a horizontal surface so that the Airflow Indicator is approximately vertical, observe the Airflow Indicator reading. With the Blower Assembly running and no Cartridges or Filters installed, the black float will go to the top of the Indicator.
- 7) Turn the FlexAir™ Blower off, remove the Airflow Indicator, and reinstall the seal plugs in the outlet and the Cartridge/Filter mounting ports until you are ready to use the respirator.

After successful completion of the air flow test, attach the Breathing Tube Assembly of the NIOSH-approved head cover to the Blower Assembly as described in the “Instructions for Use” of the respective head cover.

- Installing the Filtration Media

Install Cartridges or Filters as follows:

NOTE: The FlexAir™ respirator utilizes three NIOSH-approved Immediate

Response Technologies Gas/Particulate Cartridges or two HE Filters and one Blanking Plug. These are the only Filtration Media which may be used with the FlexAir™ respirator (Refer to the NIOSH Approval Labels). Three (3) new Gas/Particulate Cartridges or two (2) new HE Filters must be installed before each use. The Cartridges and Filters are one-time use only and must be disposed of after use (See Disposal of Filtration Media and Batteries Section of this Instruction). The blanking plug is reusable and should be retained for repeated use.

- 1) Remove the four (4) seal plugs from the Blower cartridge/filter ports and outlet. Retain these plugs for future use.
- 2) Inspect the gaskets in each of the cartridge/filter ports. If any gasket is damaged or missing, replace with Immediate Response Technologies P/N S-60026-001. **Do not use a FlexAir™ Blower with any of the gaskets damaged or missing.**
- 3) If using Gas/Particulate Cartridges, skip to step 4. If using HE Filters install the Blanking Plug as follows:

- Install the Blanking Plug in the center filter port (located on the bottom of the blower).

⚠ WARNING

Do not overtighten the Blanking Plug. Overtightening may distort the gasket resulting in leakage that may expose the wearer to substances which can cause serious personal injury or death.

- Start threading the plug by hand in a clockwise direction. Tighten the plug with a coin (or similar blunt object) by inserting the coin in the depression in the plug and turning clockwise until hand tight.

⚠ WARNING

Do not Use the Blanking Plug with the Gas/Particulate Cartridges. Only use the Blanking Plug with two HE Filters. Using the Blanking Plug with two Gas/Particulate Cartridges will result in a system configuration that may not provide appropriate air flow for loose-fitting head covers. Always use Three Gas/Particulate Cartridges. Failure to obey this warning may result in reduced system performance leading to serious personal injury or death.

- 4) Remove three Gas/Particulate Cartridges or two HE Filters from the packaging. Cartridges and Filters are considered to have been put in service when they are removed from their packaging. Cartridges and Filters are intended for one time use only.

⚠ WARNING

Verify the packaging is intact, the expiration date has not been passed, and the Cartridge or Filter housing is not damaged. Using damaged Cartridges or Filters may result in serious bodily injury or death.

- 5) Install three Gas/Particulate Cartridges or two HE Filters to the Blower Assembly by threading into the cartridge/filter ports until hand tight.

⚠ WARNING

Do not overtighten Cartridges or Filters. Overtightening may distort the gasket resulting in leakage that may expose the wearer to substances which can cause serious personal injury or death.

- Airflow Test (Filtration Media Installed)

Using the Airflow Indicator, test operation of unit with Cartridges or Filters in place, as follows:

⚠ WARNING

Failure to verify adequate air flow from the Blower Assembly may result in reduced performance of the unit, leading to serious personal injury or death.

- 1) Inspect the Airflow Indicator to verify that the O-ring is present and in good condition. The black float shall move freely within column.
- 2) Insert the Airflow Indicator into the Blower Assembly air outlet. Push the Airflow Indicator into the air outlet until it contacts the shoulder.
- 3) Turn on the Blower Assembly.
- 4) Supporting the Blower Assembly on a horizontal surface so that the Airflow Indicator is approximately vertical, observe the reading on the Airflow Indicator. Acceptable performance shall be indicated by the position of the black float being above the 6 CFM line marked on the outside of the column. (With fresh Cartridges or Filters and a fully charged

battery, the black float should rise nearly to the top of the Airflow Indicator.

- 5) Turn the Blower Assembly off and remove the Airflow Indicator.

The FlexAir™ respirator is now ready for use. The user must follow the donning procedures before actual use of the respirator.

5.1 USING THE FLEXAIR™ SYSTEM

- Donning the FlexAir™ Blower

Don the Blower Assembly as follows:

⚠ WARNING

Donning, doffing, and obtaining and checking for a proper head cover fit must be done in an area known to be free of contaminants. The respirator user must have practiced this procedure before attempting to use the respirator for respiratory protection. Failure to do so may result in serious bodily injury or death.

- 1) Examine the Breathing Tube Assembly to verify that it is properly connected to the Blower Assembly.
- 2) Examine the Filtration Media to verify that they are properly installed to the Blower Assembly.
- 3) If using the HE Filters, ensure the Blanking Plug is properly installed in the Blower Assembly.
- 4) Depress the switch to activate the blower and perform an airflow check to confirm that the Battery is charged and the Blower Assembly is working.

NOTE: during initial system startup, the alarms will sound momentarily. If the alarms fail to cease sounding, do not use the FlexAir™ Blower until the fault is found and corrected. If the fault cannot be determined, remove the FlexAir™ from service and contact Immediate Response Technologies for repair.

- 5) After initial startup alarms have ceased, cover two cartridge or filter inlets with the palms of the hands. The low flow alarm will activate. This test will familiarize the end user with the alarm tone. If this alarm does not sound, remove the unit from service until the fault is located and corrected in accordance with the note directly above.
- 6) Depress the switch to turn the blower off.
- 7) Don the Waist Belt with the Blower Assembly such that the FlexAir™ Blower outlet is located at the top, with the unit centered on the back. Fasten the buckle and adjust the Waist Belt.

The donning instructions for the head covers are given in the respective sections of their "Instructions for Use."

Additional protective clothing and protective head wear if used, must be arranged so that it does not interfere with the fit of the head cover or restrict the airflow to the Cartridges or Filters.

⚠ WARNING

Failure to properly adjust the position of the Blower Assembly to allow free movement of the Head Cover and the Breathing Tube may result in the head cover being disturbed when the head is turned, thus reducing the protection offered by the respirator.

Positioning the Blower Assembly such that the Breathing Tube is excessively loose or excessively tight may result in the head cover being pulled from the user's face, exposing the user to the hazardous atmosphere the respirator was intended to protect against, and could result in serious bodily injury or death.

The FlexAir™ respirator must be properly prepared for use and properly donned in an area known to be free of contamination before it can be used.

Before entry into a contaminated area, the maximum safe duration of use must be estimated. The maximum safe duration of use depends primarily on:

- The amount and type of contamination in the air and the capacity of the Cartridge to absorb or neutralize that contaminant.
- The amount of airborne particles (dust) in the atmosphere.
- The charge contained in the Battery.
- The physiological limits of the respirator user.

The maximum expected Cartridge or Filter life shall be predetermined based on a determination of the amount of contaminant in the atmosphere, the capacity of the Cartridges or Filters and the expected air flow through the Cartridges or Filters.

An average airflow of approximately two cubic feet per minute (2 CFM) will flow through each of three Cartridges during prolonged use. An average air flow of approximately three cubic feet per minute (3 CFM) will flow through each of two HE Filters during prolonged use. In determining maximum time of use in a contaminated area, consideration must be given to any physiological limitations of the user.

After four (4) hours of use, the user **MUST** leave the contaminated area, decontaminate if required, and check the system airflow with the Airflow Indicator (See IN USE FLOW TEST, Section 5.2, of this instruction). Thereafter, the airflow must be checked at least every two (2) hours of use to monitor battery life and filter efficiency.

The FlexAir™ Blower features low-airflow and low-battery voltage audible alarms that sound whenever a low-airflow or low-battery voltage fault condition is encountered. Under either fault condition, with the alarm sounding, the end user **SHALL IMMEDIATELY RELOCATE** to an uncontaminated area, following proper decontamination procedures, and the system is to be evaluated to ascertain the fault condition.

The audible “pulsing” low-battery voltage alarm activates when the system battery voltage is approaching a low level and the user **MUST** leave the contaminated environment immediately and decontaminate if necessary. Charge the onboard battery before reusing the system.

The audible “continuous” alarm activates when the system air flow falls to a level where the end user **MUST** leave the contaminated environment immediately, decontaminate if necessary. If continued system use and re-entry is required, the cause of the low flow alarm must be determined (ie, clogged

filters, obstructed hose), corrected, and the system checked for proper operation.

During use, it is possible for the low-airflow alarm to sound intermittently when the backpressure in the head cover is increased. This can be the result of the head cover being bumped, depressed from the outside, or a particular head/body movement. This is a momentary signal. However, should the alarm fail to stop, the end user **MUST** leave the contaminated area immediately.

⚠ WARNING

If, during use,

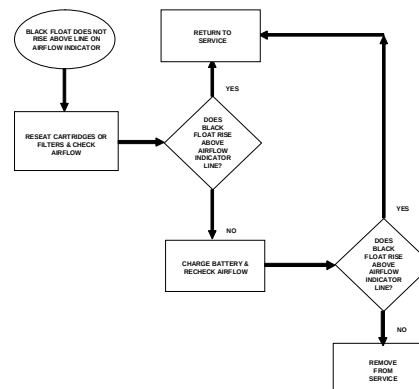
- either the low-battery or low-airflow alarm annunciates; or
- the air flow from the FlexAir™ Blower should noticeably decrease or stop completely, or if inhalation should become difficult; or
- the airborne contaminant is detected by odor, taste, eye irritation, or if any discomfort is felt during respirator use; or
- the blower housing should become hot to touch,
- **IMMEDIATELY LEAVE THE CONTAMINATED AREA.** Decontaminate if required, and check the respirator. Failure to do so can lead to serious bodily injury or death.

5.2 IN USE FLOW TEST

If, at any time, the respirator user leaves the contaminated area because of an alarm condition, decreased air flow from the Blower Assembly, a difficulty inhaling, the expiration of time the Cartridge or Filter is expected

to be useful in removing airborne contaminants, or after continued use has exceeded the recommended time period, the following airflow test must be performed on the respirator before reentry to the contaminated area:

- 1) The user must leave the area requiring respiratory protection and be in an area free from contaminants.
- 2) The user must be decontaminated, if required, at least to the extent that the Breathing Tube can be disconnected from the Blower Assembly.
- 3) The Airflow Indicator must be installed as described in these Instructions and the Blower Assembly airflow measured. [See Section 5.0 Airflow Test (Filtration Media Installed)]
- 4) The blower must be operating and Cartridges or Filters must be installed. If the black float does not rise completely above the 6 cfm line on Airflow Indicator, **DO NOT USE THE RESPIRATOR.** Proceed as shown in the branching logic tree.



- 5) After obtaining an acceptable flow test, the user can re-enter the contaminated area.

NOTE: If the original Cartridges or Filters are retained for re-entry, care must be taken not to exceed the total time of estimated useful life of the Cartridge or Filter versus the concentration of the particular contaminant it is being used to protect against.

5.3 AFTER USE

⚠ WARNING

The Doffing process shall be performed only in a non-hazardous environment. Failure to do so may result in serious bodily injury or death.

Exit the area requiring respiratory protection and proceed to decontamination, if necessary.

When conditions are safe to remove and handle the respirator

- Depress the switch to turn the blower “OFF”.
- Doff the head cover. The doffing instructions for head covers are given in the respective sections of their “Instructions for Use.”

- **Doffing the FlexAir™ Blower**
Doff the Blower Assembly as follows:

Disengage the belt buckle by squeezing the top and bottom tabs of the buckle assembly toward the center of the buckle.

Unthread and remove the Cartridges or Filters. Cartridges or Filters are intended for one use only and must be disposed of on termination of use. Do not dispose of Cartridges or Filters as ordinary trash. See DISPOSAL OF FILTRATION MEDIA AND BATTERIES section of this instruction.

After termination of use and decontamination of exterior of the respirator, if necessary, the respirator must be cleaned and inspected and the onboard battery charged. See CLEANING THE RESPIRATOR and CHARGING THE BATTERY sections of this instruction.

The FlexAir™ Respirator must be cleaned, inspected, and prepared for the next use.

6.0 MAINTENANCE AND STORAGE

⚠ WARNING

Failure to properly clean and inspect the head cover, breathing tube, waist belt and Blower Assembly may result in the respirator providing little or no protection and may expose the user to substances which can cause personal injury or death.

Respirators must be cleaned, disinfected, and inspected after each use. After such cleaning and inspection, the respirator must be stored in a clean, dry area away from direct sunlight, and reinspected during preparation for use before it is used again.

The used Cartridges or Filters must be removed from the respirator and disposed of as directed in the DISPOSAL OF FILTRATION MEDIA AND BATTERIES section of this instruction.

6.1 CLEANING THE RESPIRATOR

The respirator shall be cleaned/disinfected/decontaminated in accordance with local safety protocols.

Clean the respirator after each use as follows:

- 1) Inspect the equipment for worn or aging rubber parts, worn or frayed webbing, or damaged components.
- 2) Disconnect the Breathing Tube from the Blower Assembly. Instructions for cleaning the head cover are given in the respective sections of the head cover User Instructions.
- 3) Carefully clean the Blower Assembly and Waist Belt Assembly by wiping with a warm water solution (110°F. maximum) containing a mild detergent. The green caps can be installed in the cartridge/filter mounting ports and air outlet to prevent liquids from entering the blower during cleaning. DO NOT IMMERSE THE BLOWER ASSEMBLY. A soft cloth may be used for scrubbing extremely dirty areas. Clean the breathing tube connection and cartridge mounts for dirt that could prevent an airtight seal. Rinse thoroughly by wiping with clean water.

NOTE: If accidental immersion of the Blower Assembly occurs, the Blower Assembly must be allowed to air dry thoroughly and then be tested with the Airflow Indicator to verify that the motor was not damaged. Ensure the charging jack is completely dry before charging the battery.

- 4) Examine all hardware to verify proper condition of threads, couplings and adapters.
- 5) Examine to verify all gaskets and seals are present and in good condition.
- 6) Examine the Blower Assembly for damage or cracks. Verify that there are no loose objects rattling inside the Blower Assembly.
- 7) Verify that unit is working properly before storage by checking the airflow as instructed in the BEFORE USE section of this instruction.
- 8) Correct any deficiencies immediately, or tag the respirator as in need of repair and remove from service.

6.2 CHARGING THE BATTERY

⚠ WARNING

Ensure the charging jack is completely dry before charging the battery to avoid electric shock.

The on-board rechargeable Li-ION Battery is charged in accordance with Section 5.0, CHARGING THE BATTERY of this instruction and the charging instructions supplied with the Immediate Response Technologies Battery Charger.

The on-board rechargeable Li-ION Battery can **ONLY** be charged using the Immediate Response Technologies Battery Charger, P/N S-20106-001. When the batteries have reached their useful service life the entire blower assembly should be disposed of. Read the DISPOSAL OF FILTRATION MEDIA AND BATTERIES section of this instruction.

6.3 STORING THE RESPIRATOR

Store the Immediate Response Technologies FlexAir™, as follows:

- On the Blower Assembly, replace the green caps in the three Cartridge/Filter mounting ports and in the air outlet on the top of the unit for storage.

⚠ CAUTION

Store the blower with onboard battery away from direct sunlight, heat and moisture to prevent damage

- Store the Blower away from sunlight, heat or moisture (at room temperature and 50% relative humidity for best results)
- The On-board rechargeable Li-ION Battery may require periodic charging during storage. For long term storage it is best to store the blower with batteries at a low charge level (~30% capacity). The battery should be charged about 10% every 6 months if not used for long periods. Follow the instructions included in this manual and those supplied with the Immediate Response Technologies Battery Charger.
- The Cartridges and Filters have an extended storage life if stored unopened, out of direct sunlight and in a dry environment. Note the expiration date. Use as soon as possible after removing from
- Keep this instruction booklet with the complete respirator in its packaging.

7.0 DISPOSAL OF FILTRATION MEDIA AND BATTERIES

Cartridges and Filters:

Remove used Cartridges and Filters and dispose of properly.

- Handle the Cartridges and Filters with care. Cartridges and Filters may contain the contaminant that was in the atmosphere while the Cartridges or Filters were being used and must be handled as a contaminated or potentially contaminated object.
- Disposal of the Cartridges and Filters must be in accordance with state and local environmental regulations.

Batteries:

When the batteries have reached their useful service life the entire blower assembly should be disposed of.

- *Dispose in accordance with state and local environmental regulations and in accordance with the material safety data sheet (MSDS) for the Li-ION Battery (to obtain an MSDS, please contact Immediate Response Technologies.).*
- *Battery recycling is encouraged. For information on recycling through the Rechargeable Battery Recycling Corporation, call 1-800-8-BATTERY, or visit their website at www.rbrc.org.*
- *DO NOT INCINERATE or subject the battery cells to temperatures in excess of 212°F. Such treatment can vaporize the liquid electrolyte, causing cell rupture. Incineration could result in cadmium emission release.*

8.0 SERVICE

The Immediate Response Technologies FlexAir™ Respirator has no user-serviceable parts except as instructed in this manual. Any operational problems should be referred to Immediate Response Technologies.

9.0 CONSTRUCTION

<u>Part Number</u>	<u>Standard System Description</u>
N-60179-001	Includes: M-60176-BLK FlexAir™ Blower Assembly w/Onboard Battery (Black); S-30019-001 Web Belt Assembly; S-30112-001 Airflow Indicator; User Manual
N-60180-001	Includes: M-60176-WHT FlexAir™ Blower Assembly w/Onboard Battery (White); S-30019-001 Web Belt Assembly; S-30112-001 Airflow Indicator; User Manual
N-60181-001	Includes: M-60176-GRN FlexAir™ Blower Assembly w/Onboard Battery (Green); S-30019-001 Web Belt Assembly; S-30112-001 Airflow Indicator; User Manual

* Add Breathing Tube, Head Cover, Charger and Filter Media for complete NIOSH-Approved System.

<u>Part Number</u>	<u>Breathing Tube Assemblies</u>
S-30111-001	Breathing Tube Assembly, for Loose-Fitting Head Covers (Black)
S-30128-001	Breathing Tube Assembly, for Loose-Fitting Head Covers (White)
S-45177-001	Breathing Tube Cover, Tychem® SL

<u>Part Number</u>	<u>Head Cover</u>
S-40078-W01	Loose-Fitting Visor w/Drawstring, Tychem® QC, White
S-40078-B01	Loose-Fitting Visor w/Drawstring, Tychem® QC, Blue
S-40084-W01	Loose-Fitting Hood w/Cape, Universal, Tychem® QC, White
S-40084-B01	Loose-Fitting Hood w/Cape, Universal, Tychem® QC, Blue
S-40085-001	Loose-Fitting Hood w/Cape, Universal, Tychem® SL, White
S-40059-001	Loose-Fitting Visor Head Cover, Regular, Tychem® QC, White
S-40065-001	Loose-Fitting Visor Head Cover, Regular, Tychem® QC, Blue
S-40067-001	Loose-Fitting Visor Head Cover, Regular, Tychem® QC, Yellow
S-40060-001	Loose-Fitting Visor Head Cover, Large, Tychem® QC, White
S-40066-001	Loose-Fitting Visor Head Cover, Large, Tychem® QC, Blue
S-40068-001	Loose-Fitting Visor Head Cover, Large, Tychem® QC, Yellow
S-40083-001	Butyl Hood Assembly (w/Integral Breathing Tube)

<u>Part Number</u>	<u>Battery Charger</u>
S-20106-001	Battery Charger, Li-ION, w/Barrel Plug

10.0 ACCESSORIES & FILTER MEDIA

10.1 ACCESSORIES

S-30112-001	Airflow Indicator - 4 to 6 CFM
S-60026-003	Filter Gasket (Pack of 3)
S-10022-001	Breathing Tube Assembly Gasket
S-30019-001	Web Belt Assembly - 60" Lg.
S-30021-001	Decon. Belt Assembly - 70" Lg.
S-30142-001	Chin Strap, Butyl Hood
S-30141-001	Chin Strap, Loose-Fitting Hood w/Cape

10.1 ACCESSORIES-CONTINUED

S-45126-001	IRT Carry/Storage Bag
S-10079-001	Molded Carrying Case 19" x 14" x 7-1/8"
S-70018-001	Cartridge Snap Cap

10.2 FILTER MEDIA

Part Number	Component
10072237	GME Multi-Gas HE Cartridge (3 required) (Particulate, Ammonia, Chlorine Dioxide, Chlorine, Formaldehyde, Hydrogen Chloride, Hydrogen Sulfide, Methylamine, Organic Vapor, Sulfur Dioxide)
S-70020-001	IRT M96 Cartridge (3 required) (Particulate, Ammonia, Chlorine Dioxide, Chlorine, Formaldehyde, Hydrogen Chloride, Hydrogen Fluoride, Hydrogen Sulfide, Methylamine, Organic Vapor, Sulfur Dioxide)
S-70013-001	HE2 Filter (2 req'd plus one blanking plug)
S-70021-001	HE Filter w/Nuisance Odor Relief (2 req'd plus one blanking plug)
S-45115-001	Blanking Plug, Black (1 required for use with HE Filters)
S-10048-001	Blanking Plug, Gray (1 required for use with HE Filters)

APPENDIX A - NIOSH APPROVAL LABELS



IMMEDIATE RESPONSE TECHNOLOGIES, INC.
7100 HOLLADAY-TYLER ROAD
GLENN DALE, MD 20769
(800) 598-9711



FlexAir™ Respirator Family

These respirators are approved only in the following configurations:

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		S-40081	Loose-Fitting Visor w/Drawstring, PP-C3	S-40080	Loose-Fitting Visor w/Drawstring, PP-HL	S-40078	Loose-Fitting Visor w/Drawstring, QC-C5	S-40079	Loose-Fitting Visor w/Drawstring, QC-HL	S-40083	Bury Hood Assembly (only used for Breathing Tube)	S-40084	Loose-Fitting Hood w/Carb. Universal	S-40089	Loose-Fitting Visor Head Cover (Regular)	S-40085		Loose-Fitting Visor Head Cover (Regular, Blue)	S-40087	Loose-Fitting Visor Head Cover (Regular, Yellow)	S-40090	Loose-Fitting Visor Head Cover (Large)	S-40086	Loose-Fitting Visor Head Cover (Large, Blue)	S-40088	Loose-Fitting Visor Head Cover (Large, Yellow)	S-40085	Loose-Fitting Hood w/Carb. Universal, Tychem® SL	S-1007237	ONE Multi-Gas HE Cartridge Filter - HE2	S-70013	HE Filter, White/Black Outer Relief	S-70020	HE Filter, White/Black Outer Relief	S-70021	HE Filter, White/Black Outer Relief	M-60174XXX	FlexAir™ Blower Assembly w/Rechargeable Battery	S-30113	FlexAir™ Tube Assy - Loose-Fitting Head Cover	S-30128	FlexAir™ Tube Assy, White - Loose-Fitting Head Cover	S-30049	Back Assembly - 48" Long	S-30021	Belt Assy - Decim, 70" Long 2" Wide	S-30112	Airflow Indicator - 4 to 6 GPM	S-30048	Blanking Plug, Gray	S-45115	Blanking Plug, Black	S-30142	Chin Strap, Bury Hood	S-30141	Chin Strap, Loose-Fitting Hood w/ Cape	S-70018	Cartridge Snap Cap	S-45177	FlexAir™ Tube Cover, Tychem® SL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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